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# Environmental Sociology: A Review Of Theory And Research

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**Abstract:** This paper provides a comprehensive review of the field of environmental sociology, exploring its historical development, theoretical frameworks, research methods, and key research areas. It examines contemporary issues and debates such as globalization, sustainability, technological change, and policy responses. The contributions of environmental sociologists to policy-making and practice are highlighted through case studies of successful interventions and discussions of future research challenges and opportunities. The review underscores the importance of integrating sociological perspectives into environmental policy to achieve sustainable and equitable solutions.

**Keywords:** Environmental Sociology, Globalization, Sustainability, Technological Change, Policy Responses, Environmental Justice, Research Methods, Social Movements, Climate Change, Urbanization

## I. Introduction

### A. Overview of Environmental Sociology

Environmental sociology is a subfield of sociology that focuses on the interactions between societies and their natural environments. This discipline emerged in response to growing concerns about environmental issues and their social implications. Scholars like Buttel and Humphrey (2012) have highlighted that environmental sociology seeks to understand how social structures, cultural norms, and human behaviors impact the environment and how environmental changes, in turn, affect societies. This field integrates various sociological theories and methodologies to examine environmental problems, including pollution, resource depletion, and climate change, providing a comprehensive understanding of the social dimensions of environmental issues (Dunlap & Brulle, 2015).

## B. Importance of Environmental Sociology

The importance of environmental sociology lies in its ability to bridge the gap between environmental sciences and social sciences, offering insights into the social drivers of environmental degradation and the societal impacts of ecological changes. According to Bell (2013), this interdisciplinary approach is crucial for developing effective environmental policies and promoting sustainable practices. Environmental sociology helps identify the root causes of environmental problems, such as economic systems, political power dynamics, and cultural attitudes, enabling more holistic and equitable solutions. For instance, Pellow and Brulle (2017) argue that understanding environmental inequality and justice is essential for addressing the disproportionate environmental burdens faced by marginalized communities.

## C. Purpose of the Review

The purpose of this review is to provide a comprehensive analysis of the theoretical frameworks and empirical research within environmental sociology from 2012 to 2020. By examining key studies and their findings, this review aims to highlight the progress made in understanding the social dimensions of environmental issues and to identify areas for future research. It will also discuss the contributions of environmental sociology to policy-making and practice, emphasizing the relevance of sociological perspectives in addressing contemporary environmental challenges. For example, Hannigan (2014) demonstrates how environmental sociologists have contributed to shaping environmental policies by providing insights into public perceptions and behaviors related to climate change.

# II. Historical Background

## A. Emergence of Environmental Sociology

Environmental sociology emerged in the 1970s as a response to the growing awareness of environmental problems and the recognition that these issues could not be fully understood through natural sciences alone. Pioneering works by scholars such as Catton and Dunlap (1978) laid the foundation for this field by emphasizing the need for a sociological perspective on environmental issues. Their concept of the "New Ecological Paradigm" challenged the dominant anthropocentric view, advocating for an understanding of the interdependencies between human societies and the natural environment (Catton & Dunlap, 1978). This shift was crucial in framing environmental issues as inherently social problems, requiring a multidisciplinary approach.

## B. Key Milestones and Developments

**Table 1: Key Milestones in the Development of Environmental Sociology**

Milestone	Description
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Emergence of Environmental Sociology	The recognition of environmental issues as social problems, prompting the establishment of environmental sociology as a field.
Publication of "Environmental Sociology: A New Paradigm"	Catton and Dunlap's seminal article challenging anthropocentric views and advocating for a sociological perspective on environmental issues.
Establishment of the American Sociological Association's Section on Environment and Technology	Formal recognition of environmental sociology as a subfield within sociology, providing a platform for scholarly exchange.
Introduction of the New Ecological Paradigm	Catton and Dunlap's conceptualization of the New Ecological Paradigm, emphasizing the interconnectedness of human societies and the environment.
Pioneering Works by Buttel and Humphrey	Contributions to environmental sociology literature, advancing theoretical frameworks and empirical research in the field.
Globalization of Environmental Sociology	Expansion of environmental sociology beyond the United States, with scholars from around the world contributing to its development.
Institutionalization of Environmental Sociology	Integration of environmental sociology into academic curricula and the establishment of dedicated research centers and programs.

The development of environmental sociology has been marked by several key milestones. In the 1980s, the establishment of the American Sociological Association's Section on Environment and Technology provided a formal platform for scholars to share research and collaborate. Key developments during this period include the increasing focus on environmental justice, as highlighted by Bullard (1990), who examined the disproportionate impact of environmental hazards on marginalized communities. The 1990s saw the rise of global environmental issues, such as climate change, becoming central topics in environmental sociology, with significant contributions from scholars

like Beck (1992) in his work on the "risk society," which explored how modern societies manage and perceive environmental risks.

### **C. Influential Theories and Paradigms**

Several influential theories and paradigms have shaped environmental sociology. The Treadmill of Production theory, introduced by Schnaiberg (1980), posits that the capitalist economic system perpetuates environmental degradation through its continuous demand for growth and resource extraction. Another key paradigm is the Ecological Modernization Theory, which argues that environmental protection and economic development can be compatible through technological innovation and institutional change (Mol&Spaargaren, 2000). These theories, along with others like Ecofeminism and the Political Economy of the Environment, provide diverse lenses through which environmental sociologists analyze and interpret environmental issues.

## **III. Theoretical Frameworks**

### **A. Human Ecology Theory**

Human Ecology Theory examines the relationships between human populations, social organization, and the environment. This theory, rooted in the works of Park and Burgess (1925), has been expanded to address contemporary environmental issues. It emphasizes the dynamic interactions between human societies and their environments, considering factors such as population density, resource use, and technological advancement (Duncan, 1961). Recent studies have applied this framework to understand urbanization's impact on environmental sustainability (McDonnell & Hahs, 2013).

### **B. Political Economy of the Environment**

The Political Economy of the Environment framework explores how economic systems and power relations shape environmental outcomes. This approach, influenced by Marxist theory, examines the ways in which capitalist modes of production contribute to environmental degradation and inequality (O'Connor, 1998). Foster (2012) argues that the capitalist pursuit of profit leads to the exploitation of natural resources and the marginalization of vulnerable communities, highlighting the need for structural changes to achieve environmental justice and sustainability.

### **C. Ecofeminism**

Ecofeminism links environmental issues with feminist concerns, arguing that the exploitation of nature and the oppression of women are interconnected. Scholars like Shiva (1988) and Merchant (1990) have emphasized that patriarchal structures contribute to environmental degradation and social injustice. Ecofeminism calls for a reevaluation of societal values and the adoption of more holistic, inclusive approaches to environmental stewardship, advocating for the empowerment of women and marginalized groups in environmental decision-making processes (Gaard, 2015).

### **D. Risk Society Theory**

Risk Society Theory, developed by Beck (1992), posits that modern societies are increasingly preoccupied with managing risks, particularly those associated with environmental hazards. Beck argues that industrialization and technological advancements have led to new forms of risk that are global in scope and require new approaches to governance and public participation. This theory has been influential in understanding how societies perceive and respond to environmental threats such as climate change, nuclear disasters, and pollution (Beck, 1992).

### **E. Ecological Modernization Theory**

Ecological Modernization Theory suggests that environmental protection can be achieved alongside economic growth through technological innovation and institutional reforms. Proponents like Mol and Spaargaren (2000) argue that modern societies can transition towards sustainability by integrating environmental considerations into economic and political processes. This theory emphasizes the role of technological advancements, regulatory frameworks, and market mechanisms in promoting sustainable development (Spaargaren, 2011). It provides a more optimistic outlook compared to other theories, focusing on the potential for positive change through systemic transformations.

## **IV. Research Methods in Environmental Sociology**

### **A. Qualitative Methods**

Qualitative methods in environmental sociology focus on understanding the meanings, experiences, and perspectives of individuals and communities concerning environmental issues. These methods include interviews, focus groups, ethnography, and participant observation. For instance, interviews can reveal in-depth insights into people's environmental attitudes and behaviors, as shown in Bell's (2013) study on rural communities' responses to environmental change. Ethnographic studies, like those conducted by Walker (2012), provide rich, contextualized understandings of how environmental problems affect everyday life and social relations. These methods are valuable for exploring complex social dynamics and capturing the nuances of human-environment interactions (Creswell, 2013).

### **B. Quantitative Methods**

Quantitative methods involve the collection and analysis of numerical data to identify patterns and relationships in environmental sociology. Surveys, statistical analyses, and secondary data analysis are common quantitative techniques. Surveys, such as those used by Dunlap and Jones (2002), can measure environmental attitudes across large populations, providing valuable data on trends and correlations. Statistical analyses help identify significant predictors of environmental behaviors and policy support. For example, a study by Dietz, Stern, and Guagnano (1998) used statistical models to examine

the determinants of pro-environmental behavior, highlighting the role of values and beliefs.

### **C. Mixed Methods**

Mixed methods combine qualitative and quantitative approaches to provide a comprehensive understanding of environmental issues. This approach allows researchers to corroborate findings and address research questions from multiple perspectives. For example, a study by Boström and Klintman (2008) on sustainable consumption used both survey data and in-depth interviews to explore consumer practices and motivations. Mixed methods research can provide robust and nuanced insights, as it leverages the strengths of both qualitative and quantitative techniques (Creswell & Plano Clark, 2017).

### **D. Case Studies and Comparative Research**

Case studies and comparative research are essential for understanding specific environmental issues in particular contexts and drawing broader conclusions across different settings. Case studies, such as the one conducted by Bullard (2000) on environmental justice in the United States, offer detailed examinations of specific instances of environmental inequality. Comparative research, like that by Jorgenson and Clark (2012), compares environmental policies and outcomes across countries to identify best practices and policy impacts. These methods enable the identification of context-specific factors and the generalization of findings to broader contexts.

## **V. Key Research Areas**

### **A. Environmental Attitudes and Behaviors**

Research on environmental attitudes and behaviors explores how individuals and communities perceive and respond to environmental issues. Studies by Stern (2000) have shown that values, beliefs, and social norms significantly influence pro-environmental behaviors. This area of research examines factors such as environmental awareness, risk perception, and behavioral intentions. For example, a survey by Kollmuss and Agyeman (2002) found that knowledge about environmental issues alone is insufficient to drive behavior change; social and psychological factors play crucial roles.

### **B. Environmental Inequality and Justice**

Environmental inequality and justice research investigates the unequal distribution of environmental benefits and burdens among different social groups. Bullard (2000) highlighted how low-income and minority communities often face disproportionate environmental hazards. Studies in this area focus on the social and structural factors contributing to environmental injustice and advocate for policies that promote equity. For instance, Pellow (2017) explored how industrial pollution disproportionately affects marginalized communities and the role of social movements in addressing these disparities.

### **C. Social Movements and Environmental Advocacy**

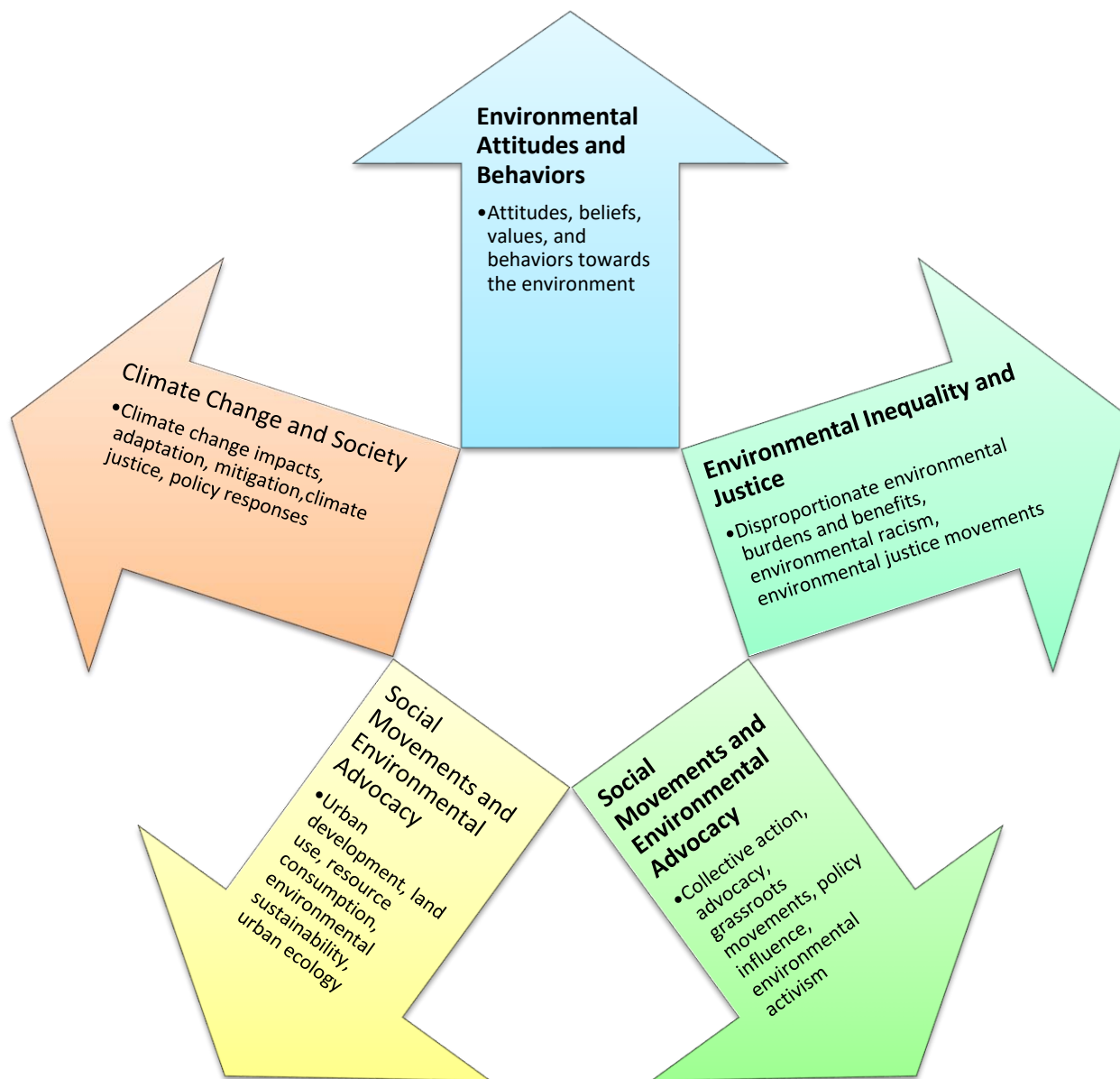
Social movements and environmental advocacy research examines the role of collective action in addressing environmental issues. Studies by McAdam and Boudet (2012) have shown how grassroots movements influence environmental policies and practices. This area of research focuses on the strategies, challenges, and successes of environmental activism. For example, Rootes (2004) analyzed the effectiveness of various environmental campaigns in Europe, highlighting the importance of organizational networks and political opportunities.

### **D. Urbanization and Environmental Impact**

Research on urbanization and environmental impact explores the complex relationships between urban development and environmental sustainability. Studies like those by Seto, Güneralp, and Hutyra (2012) examine how urban growth affects land use, resource consumption, and environmental quality. This area of research addresses issues such as urban sprawl, green infrastructure, and sustainable city planning. For instance, a study by Grimm et al. (2008) investigated the ecological impacts of urbanization and the potential for cities to contribute to biodiversity conservation.

### **E. Climate Change and Society**

Climate change and society research focuses on the social dimensions of climate change, including its impacts, mitigation, and adaptation strategies. Studies by Adger et al. (2013) have examined how climate change affects vulnerable populations and the role of social capital in enhancing resilience. This area of research also explores public perceptions of climate change, policy responses, and the effectiveness of international agreements. For example, a study by O'Brien and Leichenko (2000) analyzed the social implications of climate change in developing countries, highlighting the need for inclusive and adaptive governance.



**Figure1: Key Research Areas in Environmental Sociology**

## **VI. Contemporary Issues and Debates**

### **A. Globalization and Environmental Change**

Globalization has profound impacts on the environment, as it accelerates economic growth, resource consumption, and environmental degradation. Studies like that of Jorgenson (2016) highlight the environmental costs of global trade, including increased carbon emissions and biodiversity loss. Globalization also exacerbates environmental inequalities, as resource extraction and waste disposal often occur in less developed countries. For example, the work of Roberts and Parks (2007) shows how global economic processes contribute to environmental injustices. Additionally, globalization



facilitates the spread of environmental innovations and policies, promoting cross-border environmental governance (Mol, 2012).

### **B. Sustainability and Development**

Sustainability and development are central themes in contemporary environmental sociology. The concept of sustainable development seeks to balance economic growth with environmental protection and social equity. Research by Meadowcroft (2007) emphasizes the importance of integrating environmental considerations into development policies. The Sustainable Development Goals (SDGs), adopted by the United Nations, provide a global framework for achieving sustainability. Studies like those by Sachs (2012) evaluate the progress and challenges in meeting these goals, highlighting the need for coordinated efforts across multiple sectors and scales.

### **C. Technological Change and Environmental Impact**

Technological advancements have both positive and negative impacts on the environment. On one hand, technologies such as renewable energy and green infrastructure can mitigate environmental harm and promote sustainability (Mol&Spaargaren, 2000). On the other hand, the production and disposal of new technologies can create environmental challenges, as noted by Gabrys (2013) in her study on electronic waste. The field of environmental sociology examines how technological changes interact with social structures and cultural practices, shaping environmental outcomes. For example, research by Urry (2010) explores the implications of digital technologies for energy consumption and climate change.

### **D. Policy Responses and Social Change**

Policy responses to environmental issues are critical for achieving sustainable outcomes. Environmental sociologists study how policies are developed, implemented, and received by different social groups. Research by Dryzek (2013) examines the role of environmental discourses in shaping policy debates and decisions. Additionally, studies like that of Agyeman, Bullard, and Evans (2003) emphasize the importance of inclusive and participatory approaches to policy-making. Social movements and advocacy groups play a significant role in driving policy change, as demonstrated by the environmental justice movement's influence on policy reforms (Pellow, 2017).

## **VII. Contributions to Policy and Practice**

### **A. Role of Environmental Sociologists in Policy Making**

Environmental sociologists contribute to policy-making by providing critical insights into the social dimensions of environmental issues. Their research helps identify the root causes of environmental problems, assess the social impacts of policies, and propose equitable solutions. For example, research by Schlosberg (2007) on environmental justice has informed policies aimed at reducing environmental inequalities.

Environmental sociologists also engage with policymakers, advocacy groups, and the public to promote evidence-based and socially inclusive environmental policies.

### **B. Case Studies of Successful Policy Interventions**

Case studies of successful policy interventions demonstrate the practical contributions of environmental sociology. One notable example is the adoption of the Environmental Justice Act in the United States, influenced by research on the disproportionate environmental burdens faced by marginalized communities (Bullard, 2000). Another example is the implementation of sustainable urban planning initiatives in cities like Copenhagen, informed by studies on green infrastructure and social sustainability (Beatley, 2012). These case studies highlight the role of environmental sociologists in shaping effective and inclusive environmental policies.

### **C. Challenges and Opportunities for Future Research**

Despite significant contributions, environmental sociology faces several challenges, including the need for more interdisciplinary collaboration and the integration of diverse perspectives. Future research opportunities include exploring the social dimensions of emerging environmental issues such as climate-induced migration and the impacts of artificial intelligence on environmental management. There is also a growing need for research on the intersections of environmental justice, health, and technology (Pellow, 2018). By addressing these challenges and seizing new opportunities, environmental sociologists can continue to advance the field and contribute to more sustainable and equitable futures.

## **VIII. Conclusion**

Environmental sociology offers critical insights into the complex relationships between societies and their environments. By examining historical developments, theoretical frameworks, research methods, and key research areas, this review highlights the significant contributions of environmental sociology to understanding and addressing contemporary environmental issues. The integration of sociological perspectives into environmental policy and practice is essential for achieving sustainable and equitable solutions. As the field continues to evolve, environmental sociologists must embrace interdisciplinary approaches and engage with diverse stakeholders to tackle the pressing environmental challenges of our time.

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